Recombinant STBD1 protein (His tag)

Catalog Number	544229
Synonyms	Genethonin-1; Glycophagy cargo receptor STBD1
Species	Human
Expression System	E. coli
Accession	O95210
Molecular Weight	Predictes a molecular mass of 13.13 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	261-358
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 261-358 aa (O95210) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human STBD1 Fragment (261-358) - a highly stable and soluble protein fragment derived from Starch-binding domain-containing protein 1, optimized for structural and biochemical studies of glycophagy cargo receptor function. Starch-binding domain-containing protein 1 (STBD1/Genethonin-1) functions as a specialized cargo receptor that specifically delivers glycogen to autophagic pathways through a process called glycophagy, facilitating glycogen transport to lysosomes for degradation. This protein localizes to multiple cellular membranes including preautophagosomal structures, endoplasmic reticulum, and the cell membrane/sarcolemma, with additional presence at perinuclear structures and near junctional sarcoplasmic reticulum. As a single-pass type III membrane protein, STBD1 plays a critical role in glycogen metabolism and cellular energy regulation through its targeted delivery of glycogen cargo to autophagic machinery.